

[Med. Entomol. Zool. Vol. 56 No. 3 p. 207–210 2005]

The genus *Coproica* Rondani (Diptera, Sphaeroceridae) from the Ryukyu Islands, Japan

Toshihiko HAYASHI

Department of Medical Entomology, National Institute of Infectious Diseases, Toyama 1-23-1,
Shinjuku-ku, Tokyo, 162-8640 Japan

(Received: 31 March 2005; Accepted: 20 June 2005)

Abstract: The *Coproica* species of the family Sphaeroceridae from the Ryukyu Islands, Japan, are studied. Nine species are recorded, and one of them is described as a new species, *C. lacteipennis* sp. nov. *Coproica rohaceki* is newly recorded from the Oriental Region.

Key words: Ryukyu Islands, Japan, *Coproica*, Sphaeroceridae, Diptera, new species

The members of the genus *Coproica* are related with dung of domestic animals and manure heaps, and 10 species are recorded from Japan (Hayashi, 1986, 1995). Up to the present, however, no species of the genus *Coproica* was recorded from the Ryukyu Islands, which are situated southwesternmost in Japan, and most of the islands belong to the Oriental Region zoogeographically. After the reports by Hayashi (1986, 1995), I studied the *Coproica* fauna of the Ryukyu Is., and found 9 species. In this paper, I describe *C. lacteipennis* sp. nov. and record *C. rohaceki* Carles-Torlá, 1990 from the Oriental region for the first time.

The specimens examined in this study are preserved in the Reference Museum, Department of Medical Entomology, National Institute of Infectious Diseases, Tokyo (NIID) and Meijo University, Nagoya (MEIJO).

Coproica acutangula (Zetterstedt, 1847)
(Japanese name: Kehane-kebuka-funkobae)

Limosina acutangula Zetterstedt, 1847: 2499.

Specimens examined. 4♂, 1♀, Shiraho, Ishigaki I., Okinawa Pref., Mar. 8, 1994, T. Hayashi (NIID).

Coproica coreana Papp, 1979
(Japanese name: Chosen-kebuka-funkobae)

Coproica coreana Papp, 1979: 98.

Specimens examined. 1♀, Furusato, Yoron I., Okinawa Pref., Mar. 31, 1968, K. Ioki (MEIJO); 1♂, 1♀, Kametoku, Tokunoshima I., Okinawa Pref., April 7, 1968, K. Ioki (MEIJO).

Coproica ferruginata (Stenhammar, 1854)
(Japanese name: Sabi-ro-kebuka-funkobae)

Limosina ferruginata Stenhammar, 1855: 397.

Specimens examined. 1♂, Shiraho, Ishigaki I., Okinawa Pref., July 4, 1993, T. Hayashi (NIID); 1♂, 2♀, ditto, Mar. 8, 1994, T. Hayashi (NIID); 2♀, Uehara, Iriomote I., Okinawa Pref., July 7-9, 1993, T. Hayashi (NIID).

Coproica hirtula (Rondani, 1880)
(Japanese name: Chibi-kebuka-funkobae)

Limosina hirtula Rondani, 1880: 40.

Specimen examined. 1♂, Shiraho, Ishigaki I., Okinawa Pref., Mar. 8, 1994, T. Hayashi (NIID).

Coproica lacteipennis Hayashi sp. nov.
(Figs. 1-6)
(Japanese name: Hajiro-kebuka-funkobae)

Description.

Body length: Male 1.0-1.2 mm (holotype 1.2 mm); female 1.1-1.4 mm.

Head: Generally dark brown to black, anterior part of frons dark brown, not tinged with reddish-brown, gena somewhat brownish; 4 *if*; eye large, its longest diameter about 4 times as long as smallest genal width; antenna brown; arista short pubescent.

Thorax: Dark brown, dusted, 1 *dc*; anepisternum, katepisternum, anepimeron and meron dark brown, 2 *kepst*, posterior one strong; scutellum rounded triangular, rather short, about 20 setae on disc; 2 long *sctl*.

Wing (Fig. 1): Somewhat whitish, veins almost hyaline; C light brown, its second sector somewhat shorter than the third; apical half of R_{4+5} strongly up-curved to C; C-index = 0.81-0.85; $r-m-dm-cu : dm-cu$ = about 1.2; halter brown to yellowish-brown.

Legs: Brown to dark brown, fore coxa somewhat paler; chaetotaxy as in that of *C. hirtula* (Rondani, 1880) and *C. rufifrons* Hayashi, 1991, t_2 with 3 almost paired anterodorsal and posterodorsal setae and 1 small unpaired anterodorsal seta near base, 1 anteroventral seta on basal 2/3, mt_2 with 1 anteroventral seta on basal 1/3 and 1 posteroventral seta near base.

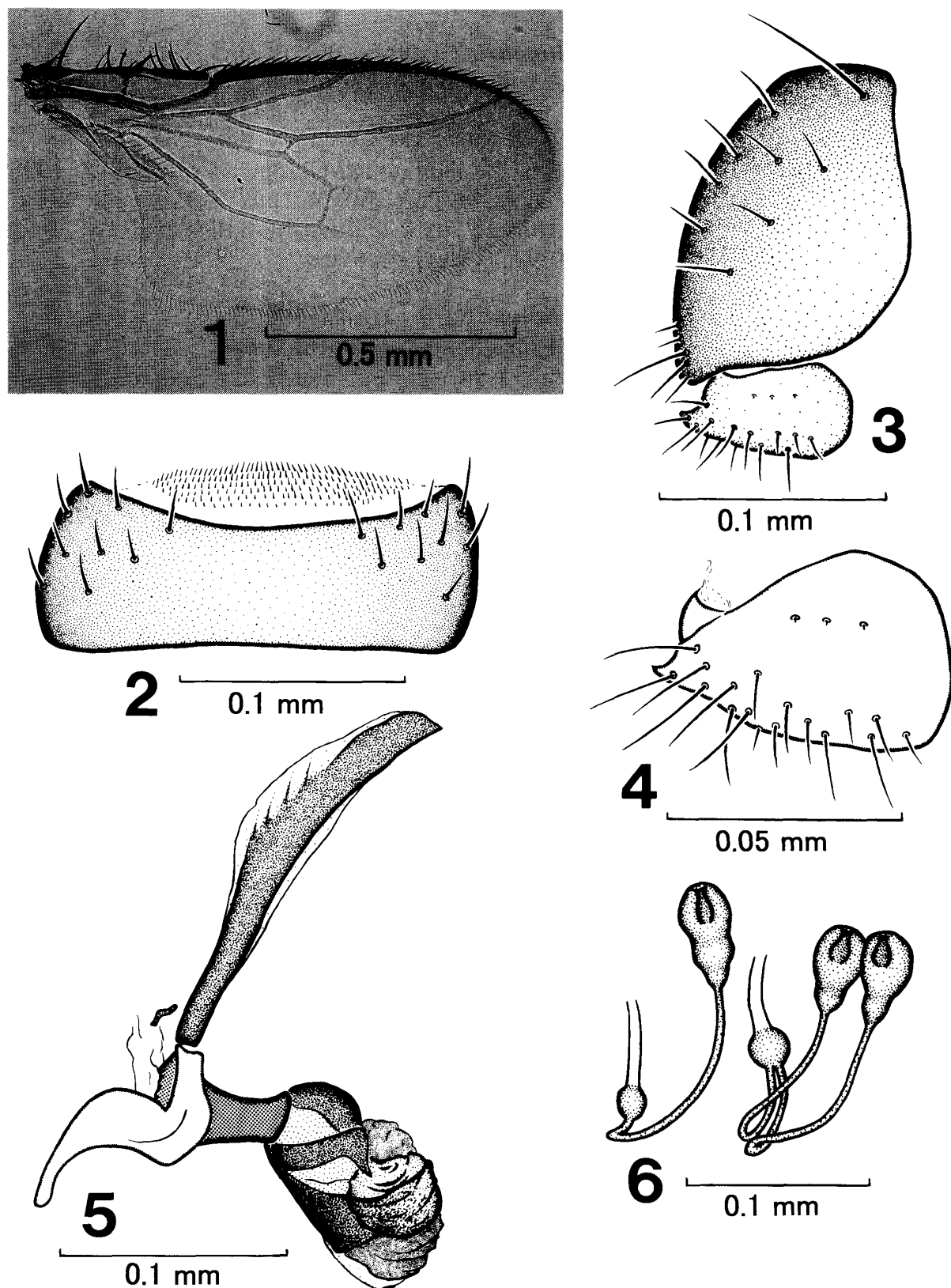
Abdomen: Dark brown. ♂. Sternite 5 (Fig. 2) simple with membranous area posteriorly, furnishing microtrichia; epandrium (Fig. 3) with a pair of long dorsolateral setae and several sparse and short setae; surstylus as in Fig. 4, its lower part furnishing setae and posterior end pointed; paramere and inner genitalia as in Fig. 5. ♀. Cercus with 3 sinuate hairs; spermathecae as in Fig. 6.

Holotype ♂, Uehara, Iriomote I., Okinawa Pref., JAPAN, July 7-9, 1993, T. Hayashi. Type is preserved in NIID.

Paratypes. 1♂, 6♀, same data as holotype. Paratypes are preserved in NIID.

Remarks. This species is related to *C. hirtula* (Rondani) and *C. rufifrons* Hayashi, but it is distinguishable from them by somewhat whitish wing and almost hyaline veins. The shape of male sternite 5, surstylus and spermathecae are also characteristic.

All individuals were collected on cattle dung in pasture.



Figs. 1–6. *Coproica lacteipennis* sp. nov.

1, wing (paratype ♀); 2, male sternite 5; 3, male terminalia, lateral view; 4, surstylus, lateral view; 5, male inner genitalia; 6, spermathecae.

Coproica lugubris (Haliday, 1836)

(Japanese name: Sujiguro-kebuka-funkobae)

Limosina lugubris Haliday, 1836: 332.

Specimens examined. 20♂, 40♀, Shiraho, Ishigaki I., Okinawa Pref., July 4, 1993, T. Hayashi (NIID); 1♀, Banna, Ishigaki I., Okinawa Pref., July 6, 1993, T. Hayashi (NIID); 7♂, 4♀, Ohara, Iriomote I., Okinawa Pref., July 8, 1993, T. Hayashi (NIID); 26♂, 13♀, Uehara, Iriomote I., Okinawa Pref., July 7–9, 1993, T. Hayashi (NIID).

Coproica rohaceki Carles-Torlá, 1990

(Japanese name: Rohâcheku-kebuka-funkobae)

Coproica rohaceki Carles-Torlá, 1990: 37.

Specimen examined. 1♂, Yona, Okinawa-honto I., Okinawa Pref., Mar. 2–6, 1994, T. Hayashi (NIID).

Remarks. This species was formerly recorded only from the Palaearctic Region. The above specimen is a first record from the Oriental Region.

Coproica rufifrons Hayashi, 1991

(Japanese name: Maeaka-kebuka-funkobae)

Coproica rufifrons Hayashi, 1991: 237.

Specimens examined. 5♂, 3♀, Uken Village, Amami-Oshima I., Kagoshima Pref., Nov. 26, 1994, T. Hayashi (NIID); 73♂, 49♀, Yona, Okinawa-honto I., Okinawa Pref., June 29–July 2, 1993, T. Hayashi (NIID); 2♀, Shiraho, Ishigaki I., Okinawa Pref., July 3–4, 1993, T. Hayashi (NIID); 1♂, ditto, Mar. 8, 1994, T. Hayashi (NIID); 1♂, 9♀, Uehara, Iriomote I., Okinawa Pref., July 7–9, 1993, T. Hayashi (NIID).

Coproica vagans (Haliday, 1833)

(Japanese name: Kebuka-funkobae)

Borborus vagans Haliday, 1833: 178.

Specimens examined. 1♂, 4♀, Shiraho, Ishigaki I., Okinawa Pref., Mar. 8, 1994, T. Hayashi (NIID).

ACKNOWLEDGEMENTS

I express my sincere thanks to Prof. T. Okadome of Meijo University for giving me the opportunity to examine the specimens preserved in his laboratory.

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